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Steccherinum straminellum, a new record for Italy

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Abstract — The first Italian record of *Steccherinum straminellum* is reported from Sicily. This collection represents the first record on wood of broadleaved trees. A description and line drawing of the species based on the Sicilian specimens are provided along with notes on the taxonomy, ecology, and distribution of this rare taxon.

Key words —*Aphyllophorales*, *Corticiaceae*, wood-inhabiting fungi

Introduction

Knowledge of fungal diversity in Italy has increased remarkably over the last five years (Venturella et al. 2011). Of the 1582 wood-decay fungi recorded in Italy, 1241 represent basidiomycetes, including 770 aphyllophoroid fungi (Saitta et al. 2011). Seventeen species of *Steccherinum* Gray are known from Italy (Bernicchia & Gorjón 2010).

Steccherinum is characterized by odontoid hymenophore, encrusted pseudocystidia, and smooth thin-walled inamyloid basidiospores. Recently, the genus has been included in the family *Meruliaceae* along with the poroid genus *Junghuhnia* (Larsson 2007). *Steccherinum straminellum* is a very rare species previously collected only in Portugal (Bernicchia & Gorjón 2010, Melo 1995). Originally described as *Odontia straminella* Bres. (Bresadola 1902), the species was transferred to *Steccherinum* seventeen years ago (Melo 1995).

Materials & methods

The basidiomata were identified while fresh and microscopic features were observed in Melzer's reagent and solution of potassium hydroxide (KOH 5%) using a Leica microscope DMLB. The spore measurements were based on 50 observations for each specimen. The nomenclature is referred to MycoBank (http://www.mycobank.org). Locality coordinates were derived from the 1:50.000 scale edition of the Official Map of

the Italian State (I.G.M.I.), following the methodology proposed by Padovan (1994). The collected specimens are preserved in the Herbarium Mediterraneum Panormitanum, Palermo (PAL).

Taxonomy

Steccherinum straminellum (Bres.) Melo, Mycotaxon 54: 126. 1995. Figs 1–2

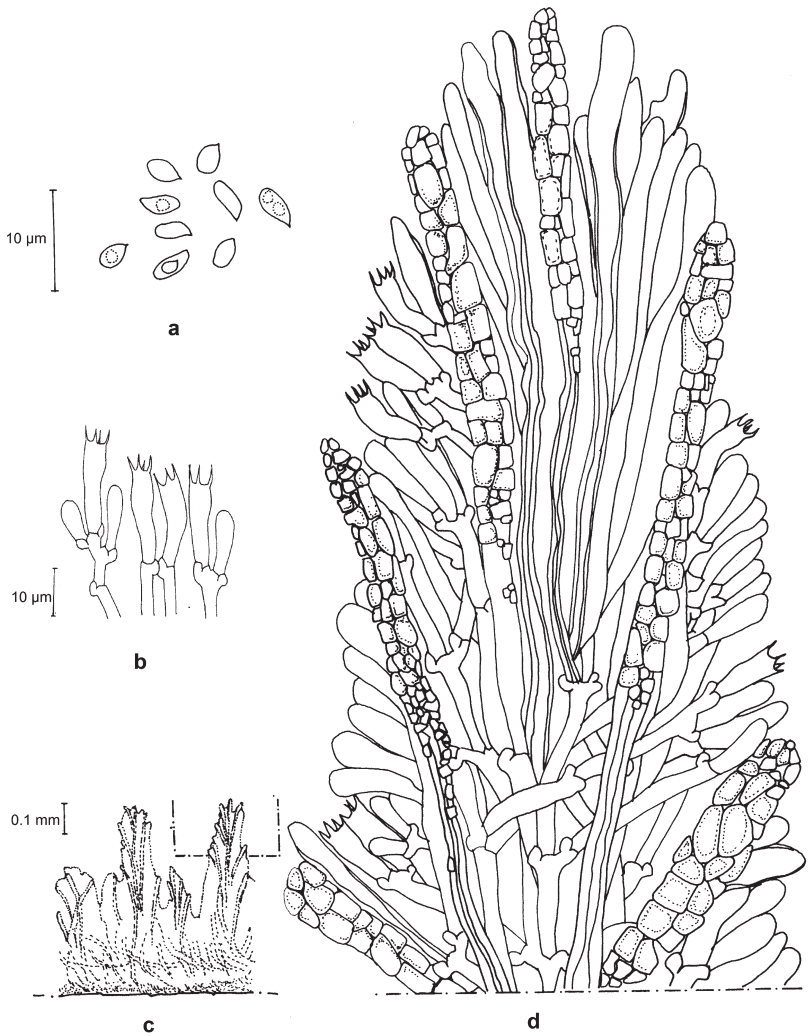

Fig. 1. *Steccherinum straminellum*, a. spores (PAL 02047 Mic); b. basidia (PAL 02047 Mic); c. section through basidiome (PAL 02050 Mic); d. section through apical part of a tooth (PAL 02050 Mic).

Fig. 2. *Steccherinum straminellum* basidiome on fallen branch of *Quercus ilex*.

Basidiome annual, resupinate, effused, adnate, broadly attached, rhizomorphs well developed, pileus surface white to pale-ochraceous, margin fimbriate, hymenophore odontioid to hydnoid, aculei up to 0.5 mm long and up 0.2 mm broad. Hyphal system dimitic, generative hyphae hyaline, thin-walled, 2.3–4.2 µm wide.

Pseudocystidia numerous, cylindrical with obtuse apex, strongly incrusted in the apical part, 7–12 µm wide, distributed along the aculei, sometimes protruding, thick-walled, becoming thin-walled towards apex. Basidia subclavate, 15–17 × 4.5–5.5 µm, with 4 sterigmata and basal clamps. Basidiospores 3.5–4(–4.5) × 2–2.2 µm, smooth, ellipsoid to subcylindrical, thin-walled, inamyloid.

Specimens examined: **ITALY**, **Sicily**, Palermo, Monte Petroso, I.G.M.I. 594123, 560 m, woodland dominated by *Quercus ilex* L., on fallen branches and trunk of *Q. ilex*, 03 Oct 2010, coll. A. Saitta (PAL 02047 Mic); 08 Mar 2011, coll. A. Saitta (PAL 02050 Mic); Casa Lo Curto, I.G.M.I. 609122, 720 m, mixed wood of *Q. suber* L. and *Q. virgiliana* (Ten.) Ten., on fallen branches of *Q. virgiliana*, 06 May 2010, coll. A. Saitta (PAL 02024 Mic).

Discussion

Steccherinum is represented by eighteen taxa in Europe, eight of which (including our new record) are currently reported for Italy: *S. bourdotii* Saliba & A. David, *S. fimbriatum* (Pers.) J. Erikss., *S. litschaueri* (Bourdot & Galzin) J. Erikss., *S. ochraceum* (Pers.) Gray, *S. oreophilum* Lindsey & Gilb., *S. robustius* (J. Erikss. & S. Lundell) J. Erikss., *S. straminellum*, and *S. subcrinale* (Peck) Ryvarden (Bernicchia & Gorjón 2010; this paper). *Steccherinum oreophilum*, *S. robustius*, and *S. subcrinale* are very rare in Italy (Bernicchia & Gorjón 2010).

The morphological features of *S. straminellum* are very close to *S. litschaueri*. The two species differ only in the filamentous margin and the length of aculei that can reach 1 mm in *S. litschaueri.* Moreover, *S. litschaueri* has thinner cystidia and subcylindrical to cylindrical, up to 5.5 µm long spores (Eriksson et al. 1984).

Previously *S. straminellum* had been collected only on conifers (Bresadola 1902; Melo 1995), but now it has been found growing on fallen branches of hardwoods, *Quercus ilex* and *Q. virgiliana,* in two localities of Sicily (southern Italy).

Based on this new finding, *S. straminellum* has a restricted southern European geographical distribution (Sicily in southern Italy, Portugal). In Sicily, *S. ochraceum* is the only common *Steccherinum* species. Our collection shows again that oak branches and trunks seem to be the preferred *Steccherinum* substrate in Sicily (Saitta et al. 2004).

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